



Translation

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference  P-42253	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No.  PCT/JP03/00080	International filing date (day/month/year)  08 January 2003 (08.01.03)	Priority date (day/month/year)  25 January 2002 (25.01.02)
International Patent Classification (IPC) or national classification and IPC  H02K 5/04, 7/14, F16H 61/34, F16H 61/32		
Applicant  NSK LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

I <input checked="" type="checkbox"/>	Basis of the report
II <input type="checkbox"/>	Priority
III <input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV <input type="checkbox"/>	Lack of unity of invention
V <input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI <input type="checkbox"/>	Certain documents cited
VII <input checked="" type="checkbox"/>	Certain defects in the international application
VIII <input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand  12 August 2003 (12.08.03)	Date of completion of this report  27 November 2003 (27.11.2003)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/00080

**I. Basis of the report****1. With regard to the elements of the international application:\***

the international application as originally filed  
 the description:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the claims:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19)  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the drawings:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
 the language of publication of the international application (under Rule 48.3(b)).  
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

contained in the international application in written form.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority in written form.  
 furnished subsequently to this Authority in computer readable form.  
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4.  The amendments have resulted in the cancellation of:**

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/fig \_\_\_\_\_

**5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/JP 03/00080
--

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	3 - 4	YES
	Claims	1 - 2	NO
Inventive step (IS)	Claims		YES
	Claims	1 - 4	NO
Industrial applicability (IA)	Claims	1 - 4	YES
	Claims		NO

## 2. Citations and explanations

Document 1: US 6173624 B1 (Borg Warner Inc.), 16 January 2001

Document 2: US 5499951 A (Borg-Warner Automotive, Inc.), 19 March 1996

Document 3: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 33604/1981 (Laid-open No. 145861/1982) (Mitsubishi Electric Corp.), 13 September 1982

The invention set forth in claims 1-2 is disclosed in document 1 (column 4, lines 38-49 and fig. 2) or document 2 (column 6, lines 34-61 and fig. 1); hence, it is not novel and does not involve an inventive step.

The invention set forth in claim 3 does not involve an inventive step with respect to document 1 or document 2. It is geometrically obvious to form the device disclosed in document 1 or document 2 in a manner such that the outer face of the case is shaped such that the part where the transmitting member protrudes and the part where the electric motor housing is attached form a continuous slope, as a means to make the radius of the electric motor larger than the distance between the axial

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/JP 03/00080

center of the outputting member positioned at the axial center of the transmitting member and the outer face of the case. Hence, this is a design feature that can be achieved as appropriate by a person skilled in the art.

The invention set forth in claim 4 does not involve an inventive step with respect to document 1 and newly cited document 3, or with respect to document 2 and document 3. It is easy for a person skilled in the art to apply the ball nut having a stopper, disclosed in document 3, to the electric actuator disclosed in document 1 or document 2.

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**International application No.  
PCT/JP 03/00080**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

The "long hole 39" and "attachment flange 39a" used in the explanation of figures in the description do not match the notations in the figures. In addition, the keys for the connecting pin are mixed between (30a) and (31a) in figures 1, 2, 25 and 26.